



DRHD-120

USER MANUAL



Precautions

IMPORTANT



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION : TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

These labels can be found on the unit's rear panel.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

Ces étiquettes se trouvent sur le fond de l'appareil.

ATTENTION

DANGER D'ELECTROCUTION
NE PAS OUVRIR

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

CAUTION

- Use of controls or adjustments or performance of procedures other than those specified here may result in hazardous radiation exposure.
- The use of Optical instruments with this product will increase eye hazard.

WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to repair. Refer all servicing to qualified personnel.

The following caution appears on rear of the unit.

CLASS 1 LASER PRODUCT

CAUTION : VISIBLE AND INVISIBLE LASER RADIATION
WHEN OPEN AVOID EXPOSURE TO BEAM

CAUTION : LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.

VORSICHT : LASERS STRALUNG, WENN ABDECKUNG
GEÖFFNET NICHT DEM STRALHL
AUSSETZEN!

ADVARSEL : LASERSTRÅLING VED ÅBNING UNDGA
UDSÆTTELSE FOR STRÅLING.

VARNING : LASERSTRÅL NING NÄR DENNA DEL ÄR
ÖPPNAD BETRÄKTA EJ STRÅLEN.

VARO! : AVATTAESSA ALTISTUT LASERSÄTBL
YLLE ÄLÄ KATSO SÄTEESN

CAUTION

VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM (WARNING LOCATION: INSIDE ON LASER COVERSHELD)



This product is in conformity with the EMC directive and low-voltage directive.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. Patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be Authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

Important Safety Instructions

- **READ THESE INSTRUCTIONS** - All the safety and operating instructions should be read before the product is operated.
- **KEEP THESE INSTRUCTIONS** - The safety and operating instructions should be retained for future reference.
- **HEED ALL WARNINGS** - All warnings on the product and in the operating instructions should be adhered to.
- **FOLLOW ALL INSTRUCTIONS** - All operating and use instructions should be followed.
- **CLEAN ONLY WITH A DAMP CLOTH** - Unplug this product from the wall outlet before cleaning. The product should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzene septicides or other volatile liquids since they may corrode the cabinet.
- **DO NOT USE THIS APPRATUS NEAR WATER**
 - Do not use this product near water - for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- **ACCESSORIES** - Only use the attachments/accessories specified by the manufacturer.
- **CART** - Use only with a cart, stand, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- **VENTILATION** - Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
- **GROUNDING OR POLARIZATION** - Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **POWER-CORD PROTECTION** - Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- **LIGHTNING** - Unplug this apparatus during lightning storms or when unused for long periods of time.
- **SERVICING** - Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled over, objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **HEAT** - Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus(including amplifiers) that produce heat.



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WARRANTY and SUPPORT

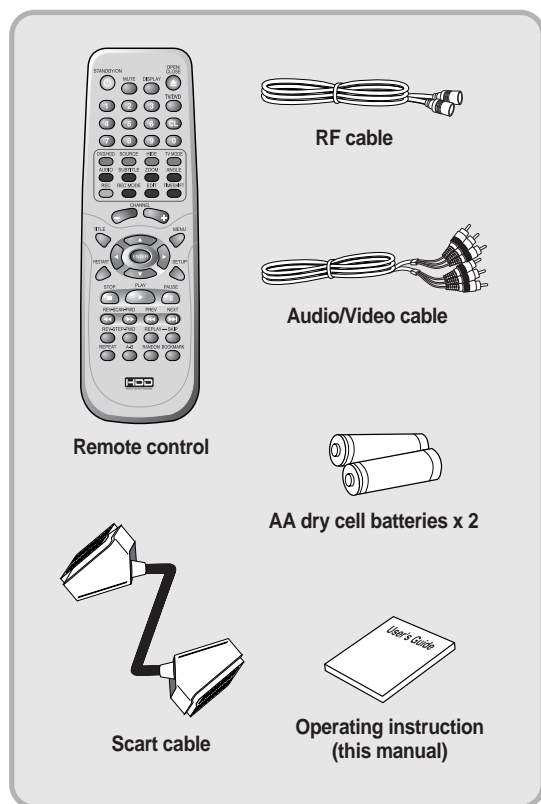
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Before You Start

What's in the box

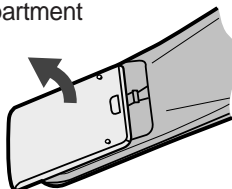
Thank you for buying this product. Please confirm that the following accessories are in the box when you open it.

Accessories

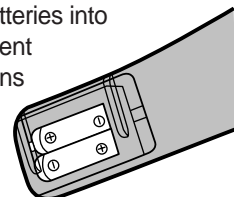


Putting the batteries in the remote control

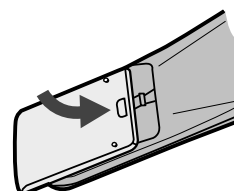
- 1 Open the battery compartment cover on the back of the remote control.



- 2 Insert two AA/R03 batteries into the battery compartment following the indications (+, -) inside the compartment.



- 3 Close the cover.



Using the remote control

Keep in mind the following when using the remote control :

- Make sure that there are no obstacles between the remote and the remote sensor on the unit.
- Remote operation may become unreliable if strong sunlight or fluorescent light is shining on the unit's remote sensor.
- Remote controllers for different devices can interfere with each other. Avoid using remotes for other equipment located close to this unit.
- Replace the batteries when you notice a fall off in the operating range of the remote.

NOTE

Incorrect use of batteries can result in hazards such as leakage and bursting. Please observe the following:

- Don't mix new and old batteries together.
- Don't use different kinds of batteries together-although they may look similar, different batteries may have different voltages.
- Make sure that the plus and minus ends of each battery match the indications in the battery compartment.
- Remove batteries from equipment that isn't going to be used for a month or more.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

Before You Start

Compatible Discs

Any disc that displays one of the following logos should play in this system. Other formats, including DVD-RAM, DVD-ROM, DVD-Audio, SACD and CD-ROM will not play.

DVD Video compatibility



- Single-sided or double-sided discs.
 - Single layer or dual layer discs.
 - Dolby Digital, DTS, MPEG or Linear PCM digital audio.
- MPEG-2 digital video Discs are generally divided into one or more titles. Titles may be further subdivided into chapters.

DVD-R compatibility



- This unit can play DVD-R discs recorded as DVD video format.

Audio CD compatibility



- 12cm or 8cm discs
- Linear PCM digital audio
- CD-Audio, CD-R and CD-RW formatted CDs are divided into tracks. (This unit can play CD-R

and CD-RW discs recorded in CD Audio or Video CD format, or Kodak picture CD files.)

DVD Video regions

All DVD Video discs carry a region mark on the case somewhere that indicates which region of the world the disc is compatible with. Your DVD player also has a region mark, which you can find on the rear panel. Discs from incompatible regions will not play in this player. Discs marked ALL will play in any player.

DVD+R/RW compatibility



- This unit can play DVD+R and DVD+RW discs recorded as DVD video format.



- Also this unit can record the video and audio signal in DVD+R or DVD+RW disc.

MPEG4 CD compatibility



- Also this can play MPEG4 disc.

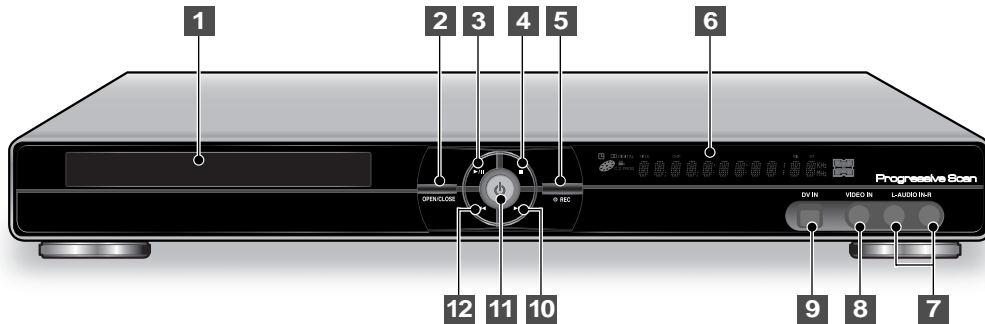
JPEG CD compatibility

- JPEG Photo in Discs.

CAUTION

- DVD-R and CD-R/RW discs recorded using a personal computer may not play if the disc is damaged or dirty, or if there is dirt or condensation on the player's lens.
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc.
- Some of MPEG4 movies could not be played depending on the encoding methods.

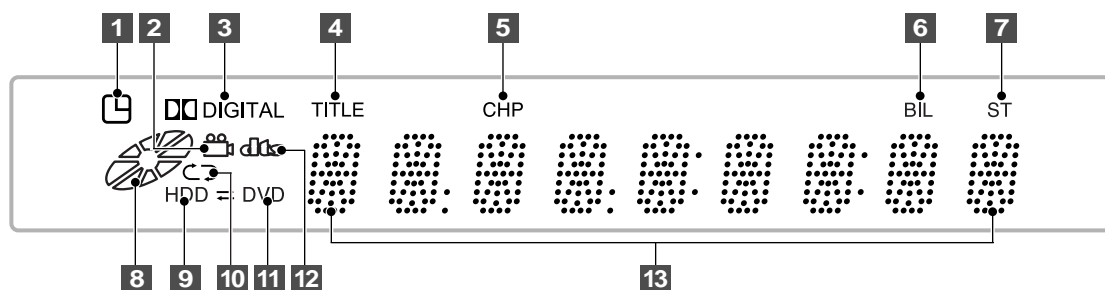
Front Panel



- 1 DISC TRAY**
Put a disc to be played in here.
- 2 OPEN/CLOSE**
To open or close the disc tray.
- 3 PLAY/PAUSE**
Press to start or pause a disc playing.
- 4 STOP**
Press to stop a disc playing.
- 5 RECORD**
Press to start a disc recording.
- 6 FL DISPLAY**
Displays operation status.
- 7 AUDIO IN**
Connect to Audio Output of camcorder.
- 8 COMPOSITE VIDEO IN**
Connect to Composite Video Output of camcorder.
- 9 DV IN**
Digital input jack for use with a digital video camcorder. This jack is for connection to DV camcorder only. It is not compatible with other digital equipments.
- 10 NEXT (Skip Forward)**
To skip to the next chapter or track.
- 11 STANDBY/ON**
To switch the unit on or into Standby.
- 12 PREVIOUS (Skip Backward)**
To skip to the previous chapter or track.

Controls & Display

Display



1 TIMER Recording Indicator
Lights when timer recording is on.

2 ANGLE
Indicates the current disc being played is viewed as multi angle.
This function only works for discs having scenes recorded at different angles.

3 DOLBY DIGITAL Indicator
Indicates Dolby Digital 5.1CH playback.

4 TITLE Indicator
Title number for DVD playback.

5 CHAPTER Indicator
Chapter number for DVD playback.

6 BILINGUAL Indicator
Illuminates when receiving a bilingual broadcast.

7 STEREO Indicator
Illuminates when receiving a stereo broadcast.

8 ROTATION
Rotates when the disc is spinning.

9 HDD Indicator
Indicates the HDD mode.

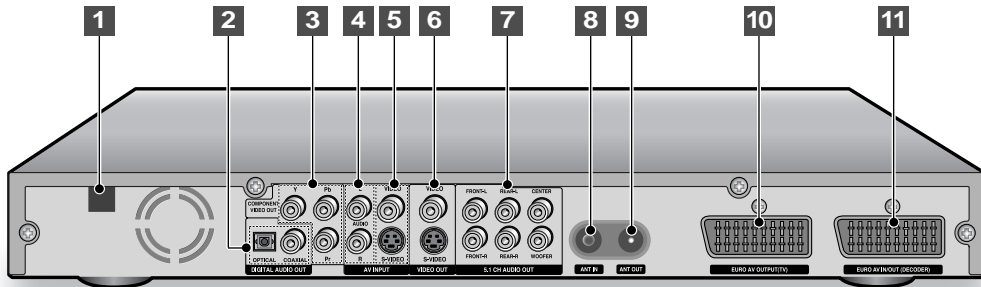
10 REPEAT Indicator
Illuminates when the current play mode is under repeat title, chapter, track, A-B respectively.

11 DVD Indicator
Indicates the DVD mode.

12 DTS Indicator
Illuminates when the format of digital audio output is DTS.

13 OPERATING Information
Indicates title, Chapter and Track number and Time, TV channel.

Rear Panel



1 AC POWER CORD

Connect to the wall outlet.

2 DIGITAL AUDIO OUT

Connect COAXIAL OUT to Digital Audio Input (coaxial type) of Audio AMP.
Or connect OPTICAL OUT to Digital Audio Input (optical type) of Audio AMP.

3 COMPONENT VIDEO OUT

Connect to Component Video Inputs of TV.

4 AUDIO IN

Connect to Audio Output of VCR or Set-Top Box.

5 VIDEO IN

Connect VIDEO to Composite Video Output of VCR or Set-Top Box.
Or connect S-VIDEO to S-Video Output of VCR or Set-Top Box.

6 VIDEO OUT

Connect VIDEO to Composite Video Input of TV or monitor.
Or connect S-VIDEO to S-Video Input of TV or monitor.
S-Video provides better picture quality than composite video.

7 5.1 CH AUDIO OUT

Connect to analog Audio Inputs of Audio AMP.
If you want to connect to TV, connect FRONT L and R to Audio Inputs of TV.

8 ANT IN

Connect to external antenna.

9 ANT OUT

Connect to Antenna Input of TV.

10 EURO AV OUT

Connect to Euro AV input of TV.

11 EURO AV IN/OUT

Connect to Euro AV in/out of AV equipment such as VCR, DVD player, etc.

Controls & Display

Remote Controller Unit



A

A-B

To repeat a certain section.

ANGLE

To view with a different frame angle.

ARROW (▲▼◀▶)

To select an item of menu.

AUDIO

To select the audio language or audio channel when playing a DVD disc.

You can also change the audio channel of the broadcast.

- If the NICAM broadcast is bilingual, you can select the language.

NICAM LANG 1 → NICAM LANG 2 → NICAM LANG 1/2

- If the NICAM broadcast is stereo, you can switch between NICAM stereo and Mono audio.

NICAM STEREO → NICAM MONO

B

BOOK MARK

To create 9 numerical bookmarks.

C

CHANNEL DOWN/UP

Used to select the preset TV channels.

CL(CLEAR)

Used to remove the preset program on the timer recording list.

D

DISPLAY

To view the Title, Chapter, Track information or Subtitle Language, Audio Language.

DVD/HDD

To switch between DVD mode and HDD mode.

E

EDIT

To edit a title or chapter of disc.

ENTER

Used to select the menu item.

H

HIDE

Used to hide a chapter.

M

MENU

Used to display the contents menu of the loaded DVD disc or the program list of HDD.

MUTE

To turn on/off audio outputs.

N

NEXT (▶▶)

To skip to the next chapter or track.

NUMERIC (0~9)

Used from the menu to select, Title/Chapter search and direct track number.

O

OPEN/CLOSE (▲)

Press button to open or close the disc tray.
If pressed under STANDBY, power is automatically turned on.

P

PAUSE (||)

When you press this button during playback, you can view the still picture.
Each time you press this button, you can see one frame at a time.

PLAY (▶)

To play the loaded disc or HDD.

PREV (◀◀)

To skip to the previous chapter or track.

R

RANDOM

To play tracks of Audio CD in random order.

REC (Record)

To start recording.

REC MODE

To select the record quality/recording time.

REPEAT

To select a repeat mode.

REPLAY

To play back again from the scene of previous 10 seconds.

It is a useful function to learn a foreign language.

RESTART

To play back again from the beginning of HDD program.

S

SCAN FWD (▶▶)

Press for fast forward scanning during playback.

SCAN REV (◀◀)

Press for fast reverse scanning during playback.

SETUP

To change the initial settings.

SKIP

For moving to a scene of after 30 seconds.

SOURCE

To select an external audio and video input to use for recording.

STANDBY/ON

Activates the unit POWER ON or into STANDBY.

STEP FWD

Each time you press this button, you can see the next video frame.

STEP REV

Each time you press this button, you can see the previous video frame.

Controls & Display

STOP (■)

To stop a disc or HDD playing.

SUBTITLE

To select the subtitle language.

T

TIMESHIFT

To store a TV program in the HDD storage cache temporarily.

TITLE

To display the title menu of the DVD or the program list of HDD.

TV/DVD

To view channels selected by the recorder tuner or by the TV tuner.

It works only when recorder and TV is connected by European Scart cable while Video out setting is RGB in Setup Menu.

TV MODE

Set up TV type according to type supported by user's TV.

Each time you press this button repeatedly, the TV type will change among NTSC, PAL and progressive scan.

This button works only when the disc tray is open.

Z

ZOOM

Enlarges DVD or HDD screen image up to 8 times.

Connection for Video Output Terminals

Composite Video (CVBS) Output

The composite video output is supported by most televisions.

The composite video jack on TV is usually yellow and may be labeled video, CVBS, composite.

Connect "Front L" and "Front R" to AUDIO INPUT (L/R) on TV and set "Analog Output" to "Stereo" from the AUDIO SETUP menu.

EURO AV Output

The Euro AV terminal can be connected to the TV equipped with Euro AV connector.

The audio transmitted on the Euro AV is stereo sound.

S-Video Output

The S-Video output can be connected to the TV equipped with an S-Video input.

The S-Video jack on TV may be labeled S-Video, Y/C, S-VHS.

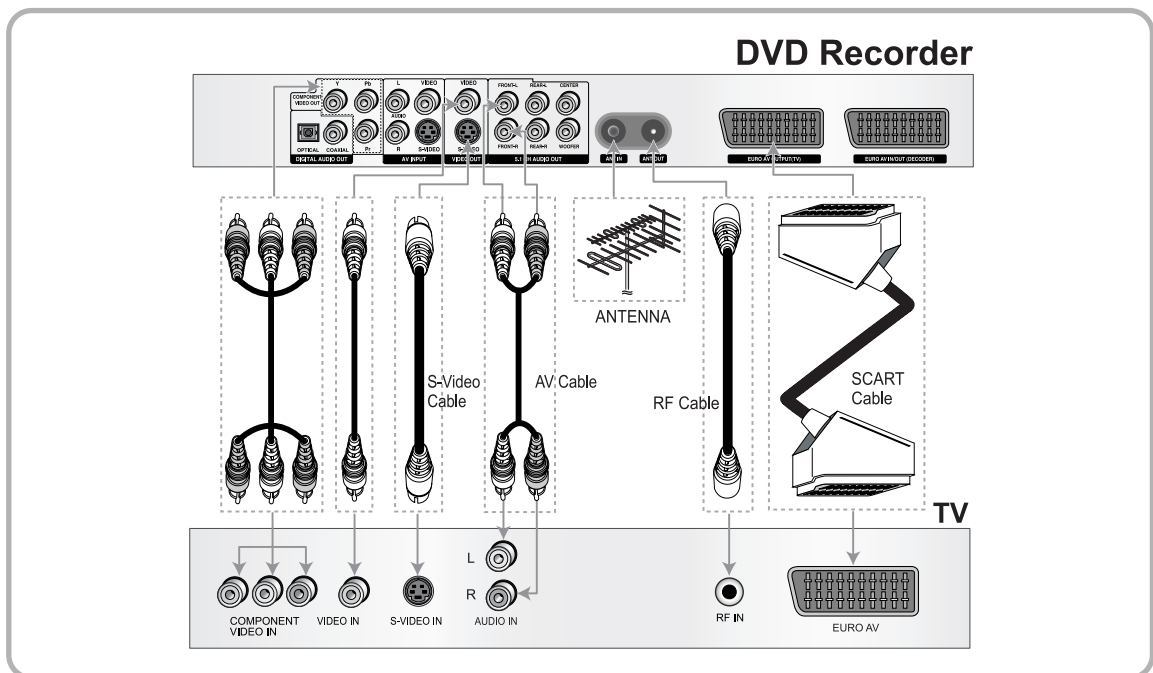
The S-Video provides better picture than the composite video.

Component Video Output

The component video output can be connected to the TV equipped with component input.

The component video jacks on TV may be labeled YUV, Y/Pb/Pr, Y/Cb/Cr and may be green, blue, red. The component video provides the best picture.

Set "Video Output" to "YCrCb On" from VIDEO SETUP menu.



NOTE

- RF OUT, is labeled TO TV, is signal pass-thru only.
- A S-Video cable is not supplied.

Connection

Connection for Audio Output Terminals

You can enjoy the Dolby surround sound by connecting 5.1ch audio output or digital audio output to the audio amplifier.

5.1ch Audio Output

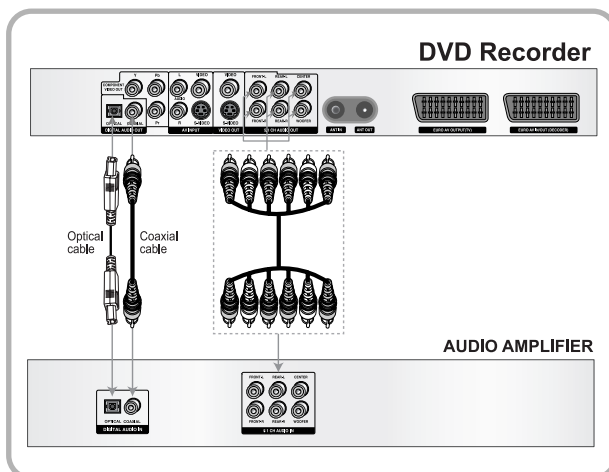
Use 5.1ch audio outputs for connection with your 5.1ch A/V receiver or amplifier. From the AUDIO SETUP menu, set "Analog Output" to "5.1 Surround".

Digital Audio Output

Use digital audio outputs for connection with Dolby Digital or DTS decoder. From the Digital Audio Output menu, select "PCM" or "Bitstream" according to your decoder.

NOTE

- An optical cable and coaxial cable are not supplied.



Connection for A/V Input Terminals

You can record programs from AV system such as VCR, Satellite receiver or Decoder box.

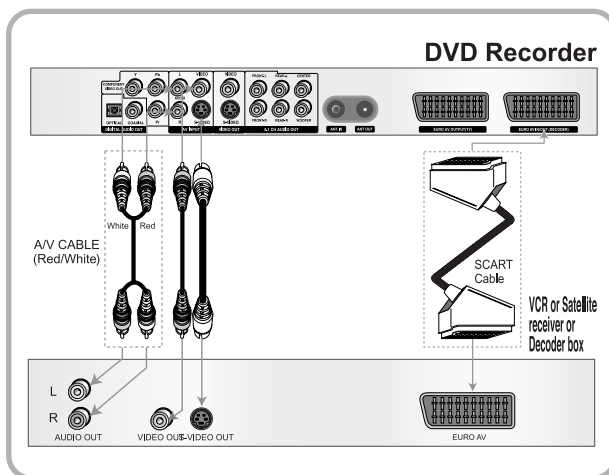
Audio Input

Connect the Audio Input to the Audio Output of AV system.

Video Input

Connect the Composite Video or S-Video Input to the Composite Video or S-Video Output of AV system.

Or connect the Euro AV IN/OUT to the Euro AV OUT of AV system.

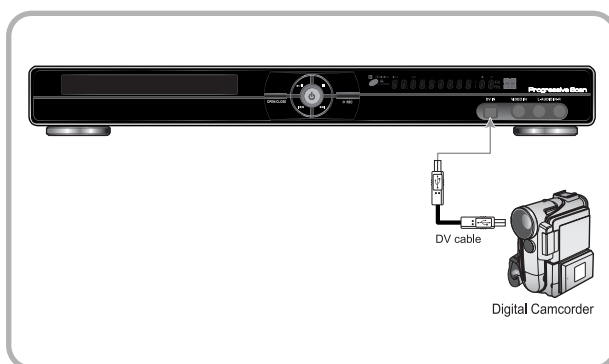


Connection for DV IN

Using the DV IN, it is possible to read digitally the contents of DV tapes.

DV Input

Connect the DV IN to the DV in/out jack on your DV camcorder using a DV cable (not supplied).



Turning on and off

- 1 Turn on your TV and set the video input to this recorder.
- 2 Press **STANDBY/ON** button on the remote controller or the front panel to turn on.
You can see the on-screen information.
If you want to turn off, press **STANDBY/ON** button again on the remote controller or the front panel.

Selecting the HDD or DVD for playback and recording

- 1 Press **DVD/HDD** button on the remote controller to select the HDD mode or DVD mode.
Each time you press it, the mode is changed.
The indicator in the front panel display shows which is currently selected.
- 2 The **DVD/HDD** button is not available during playing the DVD or HDD.
In this case press **STOP** button twice to stop playing, and press **DVD/HDD** button to select the HDD mode or DVD mode.

Displaying disc information on screen (OSD)

You can display the playback status on TV screen as follows ; Title, Chapter number, Playing time.

- 1 Press **DISPLAY** button during playback.
Title, Chapter number, Playing time, Audio language and Subtitle appear on TV screen.
You can change the subtitle language, chapter, and so on using **◀, ▶, ▲, ▼** **ENTER** button.



- 2 To turn off the on-screen display, press **DISPLAY** button.

Screen Saver

If a bright picture does not move for a long time, the TV may be damaged. If this state is continued on longer than 5 minutes, the screen saver works automatically.

The screen saver protects the CRT (Cathode Ray Tube) from damage by displaying a moving HDD logo continuously on the screen.

Basic Playback

Playing a DVD disc

- 1 Press **OPEN/CLOSE** button to open the disc tray.
Put a disc on the disc tray with logo-printed side up.
- 2 Press **OPEN/CLOSE** button again to close the disc tray.
The disc will be loaded automatically.
- 3 The TV screen shows disc menu.
- 4 Select the desired item by using ◀, ▶, ▲, ▼ or 0 to 9 button, then press **ENTER** button to start playback.

Playing a DVD+RW or DVD+R disc

- 1 Load a DVD+RW or DVD+R disc.
The menu screen is displayed automatically.



- 2 Select the desired program by using ▲ or ▼ button.
- 3 Press **ENTER** button to start playback.
- 4 Press **MENU** or **TITLE** button to return to the menu screen.

Playing an Audio CD

- 1 Load an Audio CD.
The first song is played back automatically.
The track list is displayed on the TV screen.



<Audio CD>

- 2 Select the desired song by using ▲ or ▼ button.
- 3 Press **PLAY** button to start playback.
If you press ▶▶ or ◀◀ button during playing back, you can hear the next song or the previous song.

Playing a JPEG CD

- 1 **Load a JPEG CD.**
The file list is displayed on the TV screen.



- 2 **Select the desired file by using ▲ or ▼ button.**
You can see the thumbnail picture of selected file on the right window.

- 3 **Press PLAY button to start playback.**
The JPEG files are played in order automatically.
If you press ►► or ◀◀ button during playing back, you can see the next picture or the previous picture.

- 4 **Picture rotation and zoom**
You can rotate the picture to the left or right by using ◀ or ► button.
Also you can enlarge the picture up to 4 times or reduce it up to a quarter by using **ZOOM** button.

- 5 **To see the file list, press STOP button.**
The file list is displayed on the TV screen.

Playing MPEG4 Movie

- 1 **Load a MPEG4 disc.**



- 2 **Press Enter button after selecting the desired movie using ▲, ▼ button.**

NOTE

- Some of MPEG4 movie could not be played depending on encoding method.

Basic Playback

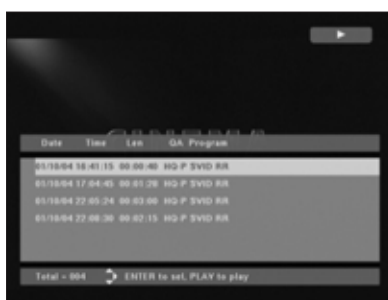
Playing a program of HDD

- 1 Press DVD/HDD button to select the HDD mode.

If you are playing a DVD, press **STOP** button twice to stop a DVD.

And then press **DVD/HDD** button to select the HDD mode.

- 2 Press **PLAY** button.
The program list of HDD appears on screen.



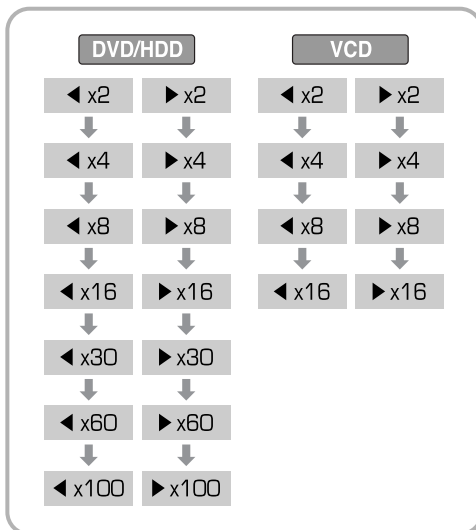
- 3 Select the desired program by using ▲ or ▼ button in the program list.

- 4 Press **PLAY** button.
It starts to play the selected program.

Fast Forward/Backward

Use this function to play the DISC or HDD contents in fast forward or fast reverse. There is no sound during searching.

- 1 Press **◀◀** or **▶▶** button during play mode. Each time you press the button, playback speed changes as below.



- 2 Press **PLAY** button to resume normal playback.

Skip Forward/Backward

Use this function to move to the next or previous chapter for DVD, track for Audio CD.

- 1 Press **◀◀** button during play mode. The DVD Recorder starts playing the previous chapter or track.
- 2 Press **▶▶** button during play mode. The DVD Recorder starts playing the next chapter or track.

Slow Forward/Backward (DVD only)

Use this function to play the DISC contents in slow forward.

- 1 Press **PAUSE** button during play mode. The DVD Recorder pauses the playing temporarily.
- 2 Press **◀◀** or **▶▶** button. The disc content is played slowly in reverse or forward. Each time you press the button, playback speed changes as below.



- 3 Press **PLAY** button to resume normal playback.

Frame by Frame Playback (DVD only)

- 1 Press **PAUSE** button during play mode. The DVD Recorder pauses the playing temporarily.
- 2 Press **PAUSE** button repeatedly. Each time you press, one frame is displayed at a time.
- 3 Press **PLAY** button to resume normal playback.

NOTE

- There is no sound during viewing Frame playback or Slow playback.
- Audio CD do not have Frame Playback and Slow Playback feature.

Advanced Playback

Program Playback (Audio CD only)

This feature lets you program the play order of folders, tracks on a disc.

1 Load an Audio CD.

The first song is played back automatically.
The track list is displayed on the TV screen.

2 Select the desired song by using ▲ or ▼ button in the track list, then press ENTER button.

A mark is put on the selected song.



3 Repeat step 2 if you want to select other songs.

4 Press ► button, then select “Add” by pressing ▼ button.

Press ENTER button to add the selected songs to the program list.
The mark on the selected songs is changed to the triangle.



5 Select “Play List” by pressing ▲ button, then press ENTER button.

Only the selected songs are displayed on the list window.



6 Press PLAY button to play the program list.

It starts playback of a saved program list.
Program playback remains active until you open the disc or turn off the DVD recorder.

7 To delete a song from the program list, select the song you want to delete by using ◀, ▶, ▲, ▼ button, then press ENTER button. A mark is put on the selected song.

Select “Delete” by using ◀, ▶, ▲, ▼ button, press ENTER button.

The selected songs are erased from the program list.

8 To return to the original list, select “File List” by using ◀, ▶, ▲, ▼ button, then press ENTER button.

Selecting Subtitles (DVD only)

It is possible to change the subtitle language to a different language from the one selected at the initial settings. This operation works only with discs on which multiple subtitle languages are recorded. If the loaded disc supports multiple subtitles, you can select the subtitle language.

- 1 Press **SUBTITLE** button during playing.
- 2 Select the subtitle language by using ◀, ▶ button, then press **ENTER** button.

The subtitle is displayed on the bottom of screen.



- 3 To turn off the subtitle, select "OFF" by using ◀, ▶ button, then press **ENTER** button.

Selecting Audio Languages (DVD only)

It is possible to change the audio language to a different language from the one selected at the initial settings. This operation works only with discs on which multiple audio languages are recorded. If the loaded disc supports multiple audio languages, you can select the audio language.

- 1 Press **AUDIO** button during playback.
The audio information is displayed on the top of screen.



- 2 Select the audio language by using ◀, ▶ button, then press **ENTER** button.
The audio language is changed.

NOTE

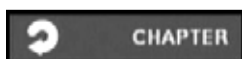
- Some discs only allow you to change subtitle or audio language from the disc menu.

Advanced Playback

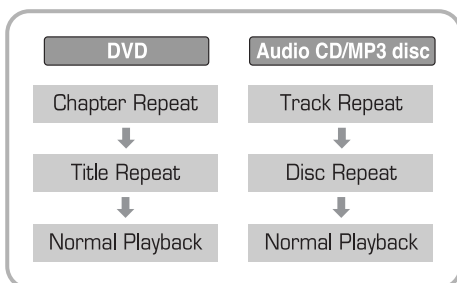
Repeating a Title, Chapter

It is possible to repeat the chapter/title for DVD or track/disc for Audio CD.

- 1 Press REPEAT button during playback.**
The repeat information is displayed on the top of screen.



- 2** Each time you press **REPEAT** button, the repeat mode is changed as follows.



NOTE

- With some DVD discs, there may be times when repeat playback is not possible.

A-B Repeat (DVD/Audio CD disc only)

Use this function to repeat the play of a selected segment. This is very useful for studying foreign languages because it repeats the selected segment until canceled.

- 1 Press A-B button at the point of where repeat play is to start.**
The starting point of your selected segment is set up.
- 2 Press A-B button again at the point of where repeat play is to end.**
The ending point is set up.
It is played repeatedly from A to B.
- 3 To cancel the A-B repeating, press A-B button once more.**
The playing state changes to normal.

NOTE

- We recommend you set up the desired segment within a minimum 5 seconds for smooth repeat play.

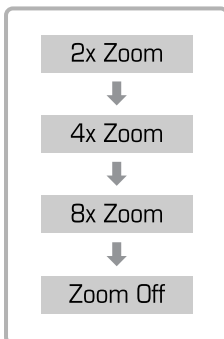
ZOOM screen (DVD/HDD only)

The zoom function allows you to enlarge DVD or HDD screen image up to 8 times.

- 1 Press **ZOOM** button during playback.
The picture is zoomed.



- 2 Each time you press **ZOOM** button, the zoom mode will be changed :



- 3 You can move the image by using ◀, ▶, ▲, ▼ button.
- 4 To cancel the zoom mode, press **ZOOM** button repeatedly until the recorder resume to normal playback.

Switching the Camera Angle

When a DVD contains recorded multiple angles of a scene, you can select the Angle function.

- 1 Press **ANGLE** button during playing.
Available angles of the current scene will be displayed on the top of screen.
- 2 Each time you press ◀, ▶ button, the angle is changed.

NOTE

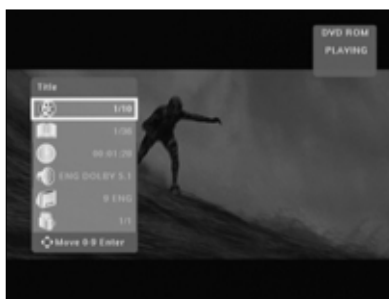
- You can only change the angle for DVDs that provide multiple angles of scenes.
- The angle function will not work on DVD video discs that do not contain recorded multiple angles.

Advanced Playback

Direct Search (DVD only)

You can select a specific chapter or title to play. Also you can move to a specific time in a track or title.

- 1 Press DISPLAY button during playback.**
The playback information appears on TV screen.



2 Title Search

- 1 Select "TITLE" by pressing ▲, ▼ button**
- 2 Enter the title number by using numeric 0 to 9 button.**
It starts to play back from the specified title.

Chapter Search

- 1 Select "CHAPTER" by pressing ▲, ▼ button.**
- 2 Enter the chapter number by using numeric 0 to 9 button.**
It starts to play back from the specified chapter.

Time Search

- 1 Select "TIME" by pressing ▲, ▼ button.**
- 2 Enter the time by using numeric 0 to 9 button.**
For example, if you want to go to 00:31:25, press the numeric buttons in this order (0, 0, 3, 1, 2, 5).
It starts to play back from the specified time.

Bookmark

You can find the desired scene of movie easily.

- 1 Press BOOKMARK button at the point of where you want to see later during playback.**

The bookmark information is displayed on the top of screen.

You can create up to 9 numerical bookmarks.



- 2 Select a bookmark to see the desired scene by using ◀ or ▶ button, then press ENTER button.**

It starts to play back from the specified bookmark.

- 3 To cancel a bookmark, press CL button after selecting it.**

Basic recording

To record TV programs, you should search TV channels first.

1 Press DVD/HDD button to select the HDD(Hard Disk Drive) or a recordable DVD (DVD+R/DVD+RW) on which you want to record.

If you want to record on the HDD, press **TV/DVD** button for HDD to be displayed on TV screen.

2 If you want to record on DVD, load a DVD+RW or DVD+R disc with enough free space for the recording.

- If you load a new blank disc, it asks for formatting the disc.
Press **ENTER** button after selecting "OK".
- If the DVD menu is displayed on TV screen automatically, press **STOP** button twice to stop.

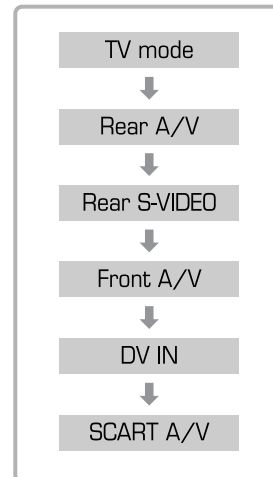
3 Press REC MODE button to set the record quality/recording time.

Every time this button is pressed, the record quality/recording time is changed as follows.

- **HQ (High Quality)** : Highest quality, you can record for up to 1 hour in a blank disc.
- **SP (Standard Play)** : Good quality, sufficient for most applications, you can record for up to 2 hours in a blank disc.
- **LP (Long Play)** : Slightly lower quality than SP, you can record for up to 3 hours in a blank disc.
- **EP (Extended Play)** : Slightly lower quality than LP, you can record for up to 4 hours in a blank disc.
- **SLP (Super Long Play)** : Use when maximum recording time is most important, you can record for up to 6 hours in a blank disc.

4 Press SOURCE button to choose the A/V source you want to record.

Every time this button is pressed, the A/V source is changed :



If you want to record the TV program, select TV mode.

And choose the station you want to record by pressing **CHANNEL -** or **CHANNEL +** button.

5 Press REC button to start your recording.

Press **PAUSE** button if you want to stop the recording for a short while.
Press again **PAUSE** button to continue recording.

6 Press STOP button to stop your recording.

NOTE

- A DVD+R/DVD+RW can record for up to 6 hours, up to 49 titles.
- If your source is copy-protected, you will not be able to record it.

Recording

OTR (One touch Timer Recording)

- 1 During basic recording, press **REC** button.
Every time you press **REC** button, the recording time will increase by 30 minutes. It is possible to record for up to 3 hours if there is enough room on the disc or HDD. The DVD Recorder will stop automatically after recording for a specific time.

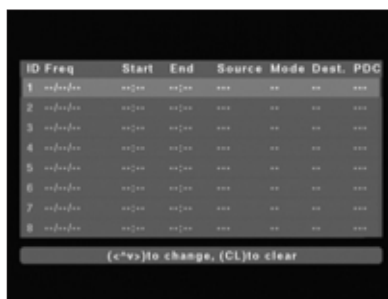


- 2 If you want to cancel OTR, press **STOP** button.

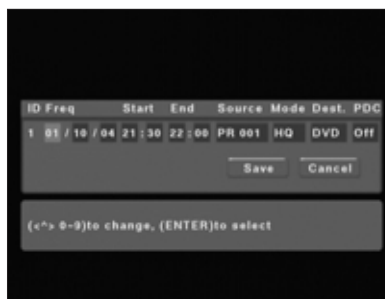
Timer Recording

For timer recording, the clock, date, and stations must be set correctly.
If you want to record on DVD, load a DVD+RW or DVD+R disc with enough free space for the recording.

- 1 Press **SETUP** button.
- 2 Press **▶** button after choosing "Timer Record" in the **RECORD** menu.
You can see the timer recording screen. This screen shows all the timer programs currently set.



- 3 Press **▲** or **▼** button to select a new timer program, for example '----', and then press **▶** button.



- 4 Enter the timer recording settings.
Use **◀**, **▶** button to select a field, use **▲**, **▼** button to change the value.

• Date

Press **▲** or **▼** button to select how often you want to make the recording, for example, once, daily, weekly.
If you want the once recording, enter the date by using **0** to **9** button.

• Start Time

Enter the start time by using **0** to **9** or **▲**, **▼** button.

• End Time

Enter the end time by using **0** to **9** or **▲**, **▼** button.

• Source

Select the Source by using **▲** or **▼** button.
If you want to record the TV program, select the TV source by using **▲** or **▼** button.
And then select the TV channel by pressing **CHANNEL-/+** button.

• REC Mode

Select **REC MODE** by using **▲** or **▼** button.

• REC To

Select HDD for hard disk recording or DVD for DVD recording by using **▲** or **▼** button.

• VPS/PDC

The VPS/PDC system automatically adjusts the recording time so that even if a program is not running to schedule you won't miss it. For VPS/PDC to work properly, you must input the correct announced time and date of the program you want to record. Note that VPS/PDC may not work with every station.

- If you want to change any of the details, move to the details you want to change by using ◀ or ▶ button. Then change the setting using ▲ or ▼ 0 to 9 button.

5 Press **ENTER** button after selecting "Save" if all the settings are correct.

6 Press **SETUP** button to exit the timer recording screen.

7 Switch off your DVD Recorder by pressing **STANDBY/ON** button.

NOTE

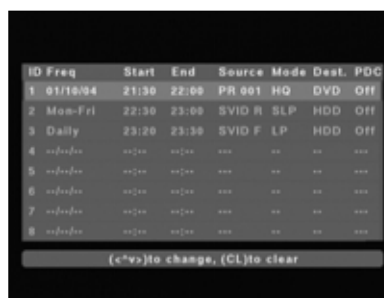
- You can switch on your DVD Recorder again if you want to set the timer to record another program. Remember to switch off the DVD Recorder when you have finished.
- To stop a recording which has already started, press **STOP** button.
- You can pre-program the timer recording up to 8 programs.

Timer review - changing and erasing record settings

1 Press **SETUP** button.

2 Press ▶ button after choosing "Timer Record" in the **RECORD** menu.

You can see the timer recording screen. This screen shows all the timer programs currently set.



ID	Freq	Start	End	Source	Mode	Dest.	POC
1	01/10/04	21:30	22:00	PR 001	HQ	DVD	Off
2	Mon-Fri	22:30	23:00	SVID R	SLP	HDD	Off
3	Daily	23:20	23:30	SVID F	LP	HDD	Off
4							
5							
6							
7							
8							

(c*)to change, (CL)to clear

3 Select the program you want to change or erase by pressing ▲ or ▼ button.

4 **Erasing a setting**
Press **CL** button to erase. It asks for confirmation again.
Press **ENTER** button after selecting "Yes".

5 **Changing a setting**
Press ▶ button to change a setting. Select the details you want to change by pressing ◀ or ▶ button, then use ▲, ▼ or the number buttons 0 to 9 to change the settings.
When you have made all the changes, press **ENTER** button after selecting "Save".

6 Press **SETUP** button to exit.

Recording

Recording from a DV (Digital Video) camcorder

You can record the contents of DV tape from a DV camcorder.

Make sure your digital camcorder is connected to DV IN jack on the front panel.

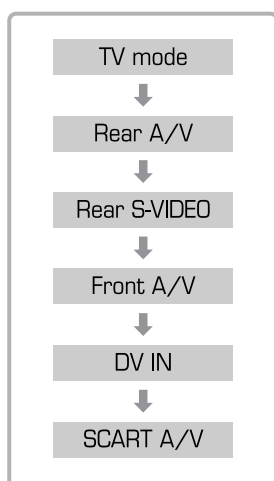
Also turn on your DV camcorder and set it to PLAY (or VCR) mode.

- 1 Press **DVD/HDD** button to select the **HDD(Hard Disk Drive)** or a recordable **DVD (DVD+R/DVD+RW)** on which you want to record.

If you want to record on DVD, load a DVD+RW or DVD+R disc with enough free space for the recording, and press **STOP** button twice to stop.

- 2 Press **REC MODE** button to set the record quality/recording time.

- 3 Press **SOURCE** button to choose **DV IN**. Every time this button is pressed, the A/V source is changed :



If you want to record the TV program, select TV mode.

And choose the station you want to record by pressing **CHANNEL -** or **CHANNEL +** button.

- 4 Find the place on the camcorder tape that you want to start recording from.

You can use the remote controller for this recorder to control the camcorder using **PLAY, STOP, PAUSE, <<, >>** button when the information of DV is displayed on the top of screen. If the information of DV disappears, press **DISPLAY** button to show it.



- 5 Press **REC** button at the point from which you want to record during playback of DV tape.

- 6 Press **STOP** button to stop your recording.

NOTE

- Depending on the connected camcorder, you may not be able to control it using the remote control supplied with this recorder.

Timeshift Recording

You can store a TV program in the HDD storage cache temporarily.

Do not miss a scene from a live broadcast. If the telephone rings while you are watching your favorite live broadcast, just press **TIMESHIFT** or **PAUSE** button before answering the phone. The timeshift function will be activated and the broadcast is then recorded for later viewing. After the phone call or viewing interruption, press **PLAY** or **◀◀** button to watch the program.

- 1 Press **PAUSE** or **TIMESHIFT** button while watching a TV program.
- 2 Press **PLAY** or **◀◀** button to watch the program.
You can watch from the beginning of recorded program.
Also you can search a scene using **◀◀**, **▶▶** button.
- 3 Press **STOP** button to exit Timeshift function.
The current broadcast is displayed on the screen.

Copying (from HDD to DVD)

Use the copying feature of this recorder to :

- Back up important recordings stored on the HDD to a DVD.
- Make a DVD copy of a recording on the HDD to play in another DVD player.

- 1 Load a DVD+RW or DVD+R disc with enough free space for the recording.
If the DVD menu is displayed on TV screen automatically, press **STOP** button twice to stop.
- 2 Press DVD/HDD button to select the HDD mode.
- 3 Press **PLAY** button. The program list of HDD appears on screen.
- 4 Select the program to copy by using **▲** or **▼** button, and Press **▶** button.
The edit menu appears on screen.



- 5 Select "Dubbing" by using **▲** or **▼** button, and press **ENTER** button.
It asks for confirmation again.
- 6 Press **ENTER** button after selecting "Yes".

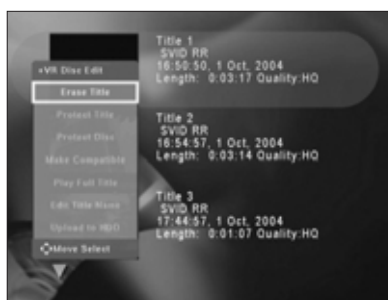
NOTE

- Note that you must back up important recordings to DVD+R/RW discs because the HDD is not designed to provide permanent storage for your recordings.

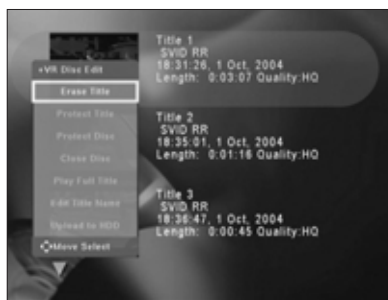
Editing (DVD+R/DVD+RW/HDD)

Editing the title of DVD+R/DVD+RW

- 1 Load a DVD+RW or DVD+R disc.**
The DVD menu screen is displayed automatically.
- 2 Select the title to edit by using ▲ or ▼ button.**
- 3 Press **EDIT** button.** The disc edit menu appears on screen.



<DVD+RW>



<DVD+R>

• Erase Title

Select “Erase Title” by using ▲ or ▼ button, and press **ENTER** button.

• Protect Title

You can prevent the contents of title from being deleted by mistake.

Select “Protect Title” by using ▲ or ▼ button, and press **ENTER** button.

If you want to unprotect the protected title, press **ENTER** button after selecting “Unprotect Title”.

• Protect Disc

You can prevent the contents of disc from being deleted by mistake.

Select “Protect Disc” by using ▲ or ▼ button, and press **ENTER** button.

If you want to unprotect the protected disc, press **ENTER** button after selecting “Unprotect Disc”.

• Close Disc (DVD+R only)

If you want to make your DVD+R disc compatible with the other DVD Player, you should go on Close Disc operation.

Select “Close Disc” by using ▲ or ▼ button, and press **ENTER** button.

It takes a couple of minutes to finalize the disc.

- This function only works once in DVD+R disc.

- If a DVD+R disc has been finalized, you can not record or edit the DVD+R disc any more.

• Make Compatible (DVD+RW only)

If you want to make your DVD+RW disc compatible with other DVD+RW recorder, you should go on Make Compatible operation.

Select “Make Compatible” by using ▲ or ▼ button, and press **ENTER** button.

It takes a couple of minutes to make the disc compatible.

- This function only works in DVD+RW disc.

- If you do not make your DVD+RW compatible, you can only play back it in this DVD Recorder.

• Play Full Title

Select “Play Full Title” by using ▲ or ▼ button, and press **ENTER** button to play back the entire title (including hidden chapters) from the disc.

• Edit Title Name

- ① Select "Edit Title Name" by using ▲ or ▼ button, and press **ENTER** button.
The keyboard will show on the screen.



- ② Select a letter which you want to input by using ◀, ▶, ▲, ▼ button, and press **ENTER** button to confirm it.
- ③ Repeat step 2.
The maximum length of the title name is up to 17 characters.
- ④ After the inputting of letters is finished, press **ENTER** button after selecting "Done".

• Upload to HDD

You can copy a program from DVD to HDD. Select "Upload to HDD" by using ▲ or ▼ button, and press **ENTER** button.

- 4 Press **EDIT** button to return to the DVD menu screen.

Editing the chapter of DVD title

- 1 Load a DVD+RW or DVD+R disc.
The DVD menu screen is displayed automatically.
- 2 Select the title to edit by using ▲ or ▼ button, and press **ENTER** button to start playback.

- 3 Press **EDIT** button during playback. The title edit menu appears on screen.



• Insert Chapter

Select "Insert Chapter" by using ▲ or ▼ button, and press **ENTER** button at the point where you would like to insert a new chapter.

• Delete Chapter

Select "Delete Chapter" by using ▲ or ▼ button, and press **ENTER** button at the point where you would like to remove the chapter.

• Hide Chapter

It is useful function to hide commercials. Select "Hide Chapter" by using ▲ or ▼ button, and press **ENTER** button at the point where you would like to hide a chapter.

• Show Chapter

This function is available during playback the entire title including hidden chapters.

- ① Press **TITLE** or **MENU** button. The DVD menu screen is displayed.
- ② Select the title including hidden chapters by using ▲ or ▼ button, and press **EDIT** button.
- ③ Select "Play Full Title" by using ▲ or ▼ button after, and press **ENTER** button.
- ④ Press **EDIT** button during playback. The title edit menu appears on screen.
- ⑤ Select "Show Chapter" by using ▲ or ▼ button, and press **ENTER** button at the chapter where you want to show.

Editing (DVD+R/DVD+RW/HDD)

• Change Thumbnail

You can create a new thumbnail or change the thumbnail for the selected title.

Select "Change Thumbnail" by using **▲** or **▼** button, and press **ENTER** button at the point where you prefer to be the thumbnail.

Editing the program of HDD

- 1 Press **DVD/HDD** button to select the HDD mode.
- 2 Press **PLAY** button. The program list of HDD appears on screen.
- 3 Select the program to edit by using **▲** or **▼** button, and Press **►** button. The edit menu appears on screen.



• Delete

- 1 Select "Delete" by using **▲** or **▼** button, and press **ENTER** button. It asks for confirmation again.
- 2 Press **ENTER** button after selecting "Yes".

• Dubbing

You can copy a program from HDD to DVD.

- 1 Load a DVD+RW or DVD+R disc.
- 2 Select "Dubbing" by using **▲** or **▼** button, and press **ENTER** button. It asks for confirmation again.
- 3 Press **ENTER** button after selecting "Yes".

• Edit Name

- 1 Select "Edit Name" by using **▲** or **▼** button, and press **ENTER** button. The keyboard will show on the screen.
- 2 Select a letter which you want to input by using **◀**, **▶**, **▲**, **▼** button, and press **ENTER** button to confirm it.
- 3 Repeat step 2. The maximum length of the program name is up to 14 characters.
- 4 After the inputting of letters is finished, press **ENTER** button after selecting "Done".

Using the Setup Menu

Once the initial settings have been completed, the DVD recorder can always be operated under the same conditions whenever the power is switched on. These settings are called SETUP data that are easily modified and stored using the SETUP menu. The SETUP menu includes the information for System, Video, Audio, Security, Record, Disc.

Basic Operations

Press **SETUP** button during stop mode. And use **◀, ▶, ▲, ▼** and **ENTER** button to navigate and select options. The current setting for any option is marked with a colored box.

- 1 Press **STOP** button, if the disc is being played.
- 2 To call the SETUP menu, press **SETUP** button.
- 3 Select the desired item by using **▲** or **▼** button, then press **▶** button.
- 4 Select the desired sub item by using **◀, ▶, ▲, ▼** and **ENTER** button.
- 5 Press **SETUP** button after you have made all settings.

NOTE

- Depending on the disc, some setup menu selections may not work properly.

SYSTEM



1 OSD LANGUAGE

This item is used to select the language for On-Screen Display messages that will be displayed on the TV screen. When your desired language is selected, all OSD messages are displayed in the selected language.

2 SET TIME

• Automatic clock setting

Some TV channels broadcast time signals together with the program. This recorder can use these signals to set the clock automatically.

1 Press **ENTER** button after selecting "Automatic".

It starts to search the preset channel that broadcasts a clock signal automatically.

2 If the time could not be set automatically, select "Manual".

• Manual clock setting

If no station in your area are broadcasting time signals, you can set the clock manually.

1 Enter the date & time by using 0 to 9 or **◀, ▶, ▲, ▼** button.

Use **0 to 9** or **▲, ▼** button to change the value in the highlighted field.

Use **◀, ▶** button to move from one field to another.

Using the Setup Menu

- 2 Press **ENTER** button after selecting "Save".

3 FACTORY RESET

Returns the DVD Recorder back to factory default settings.

- 1 Press **ENTER** button after selecting "Start".

It asks for the password.

- 2 Enter the current password in 4 digits by using 0 to 9 button.

If you have not changed the password, enter 1, 2, 3, 4.

The setup menu screen is exited automatically after factory reset.

VIDEO



1 CHANNEL SCAN

This recorder has a built-in TV tuner for recording TV programs.

- Press **ENTER** button after selecting "Start".

It will search channels automatically.

If the broadcasting is found during auto searching, it is stored automatically.

NOTE

- While doing Channel Search, it will erase and replace all previously stored channels.

2 CHANNEL SETUP

(If there is no captured channel, this feature is not available.)

- 1 Press **▶** button, and the channel list will show on the TV screen.



Using the Setup Menu

2 Select the channel you want to modify by using ▲ or ▼ button.

The information of the selected channel will show on the right of the channel list.

Changing the program number

You can change the program number assigned to the current preset.

- 1 Select "Prog Num" by using ▲ or ▼ button.
- 2 Enter the new program number by using 0 to 9 button.

Editing the channel name

- 1 Press ◀ or ▶ button after selecting "CH Name" by using ▲ or ▼ button.
The keyboard will show on the screen.
- 2 Select a letter which you want to input by using ◀, ▶, ▲, ▼ button, and press ENTER button to confirm it.
- 3 Repeat step 2.
The maximum length of the channel name is up to 4 characters.
- 4 After the inputting of letters is finished, press ENTER button after selecting "Done".

TV System

Set the TV system used for the current channel.

- 1 Select "TV System" by using ▲ or ▼ button.
- 2 Select the TV system by using ◀ or ▶ button.

Decoder

If the current channel is scrambled, requiring a Canal+ decoder connected to the A/V IN connector, set this to "On".

Fine tune

If the captured signal is not good, you can tune the channel fine.

- 1 Select "Fine tune" by using ▲ or ▼ button.
- 2 Tune the channel fine by pressing ◀ or ▶ button.
Each time ◀ or ▶ button is pressed, the channel frequency decreases or increases by 50KHz.

- 3 Press ENTER button after selecting "Save" using ▼ button if all the settings are correct.

4 Deleting a channel

You can delete a captured channel on the channel list.

- 1 Select a channel on the channel list by using ▲ or ▼ button.
- 2 Press CL button. The channel is deleted.

5 Sorting channels

(If there is no captured channel, this feature is not available.)
You can sort the channel's position on the channel list.

- 1 Select a channel on the channel list by using ▲ or ▼ button, and press ▶ button.
- 2 Select "Prog Num" by using ▲ or ▼ button.
Enter a desired program number by using 0 to 9 button.
- 3 Press ENTER button after selecting "Save" using ▼ button.
The menu options appears on TV screen.
- 4 Press ENTER button after selecting "Insert" from options.

Using the Setup Menu

3 SCREEN FORMAT

If you have a widescreen TV, select the "16:9 Wide" setting. The wide widescreen DVD disc is shown using the full screen area. When playing the DVD disc recorded in conventional format (4:3), the settings on your TV will determine how the material is presented. (See the manual that came with your TV for details on what options are available.)

If you have a conventional TV, choose either "4:3 Letter Box" or "4:3 Pan Scan".

In Letter Box mode, the widescreen DVD disc is shown with black bars at the top and bottom of the screen.

Pan Scan chops the sides off widescreen material to make it fit the 4:3 screen (so even though the picture looks larger on the screen, you are actually seeing less of the movie).

NOTE

- Some disc will not allow you to change the screen format.

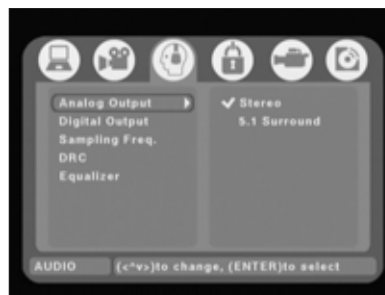
4 VIDEO OUTPUT

Set to "YCbCr On" to view in component video via Y/ Cb/ Cr connector. When using AV Euro connector RGB signal, set to "RGB On".

5 COUNTRY SETUP

Press ENTER button after selecting your country using ▲ or ▼ button.

AUDIO



1 ANALOG OUTPUT

- **Stereo** : Should be selected when you enjoy conventional 2 channel stereo audio by connecting the unit's audio output to a stereo amplifier/receiver or TV, or when you duplicate audio of a DVD video disc recorded with surround audio to your MD, cassette, etc.
- **5.1 Surround** : When you enjoy multi channel surround audio by connecting the unit's 5.1 channel audio outputs to an amplifier equipped with 5.1 channel inputs.

2 DIGITAL OUTPUT

- **PCM** : The decoded audio stream will be outputted through the digital audio out connector.
- **Bit Stream** : The original audio stream recorded on the disc is outputted through the digital audio out connector.

3 SAMPLING FREQUENCY

You only need to make this setting if you connected this recorder to an AV amplifier (or other component) using the digital audio output. If your AV amplifier (or other connected component) is compatible with high sampling rate audio (96KHz), set to "96KHz", otherwise set to "48KHz".

4 DRC (Dynamic Range Compression, only Dolby Digital DVD)

Signifies the dynamic range of Dolby Digital sound. Used when it is difficult to hear dialogues through stereo system or TV.

Using the Setup Menu

5 EQUALIZER

You can adjust the equalization curve and store it.

- 1 Select the frequency of which you want to adjust the tone by using ◀ or ▶ button.
- 2 Press ▲ or ▼ button to adjust the equalization.
- 3 Press **ENTER** button after selecting "SAVE" to store the equalization curve.

SECURITY



1 RATING

This function is to disable the playing of specified DVD discs that are unsuitable for children.

There are a total of 8 levels. If the level is 8, the contents of the disc are suitable for adult. If the level is 1, the contents of the disc are suitable for children.

Used to adjust the level of parental lock.

Once selected, whenever you play a disc, the selected rating level is compared to the level on the disc. If the level you selected is greater than the level of the disc, you may play the loaded disc. If not, you may not play the disc. To set appropriate rating level do the following instructions.

- 1 Press **ENTER** button after selecting the proper rating level by using ▲ or ▼ button.

The password window appears on TV screen.

- 2 Enter the current password in 4 digits by using 0 to 9 button. A rating level change will be done.

If you have not changed the password, enter 1, 2, 3, 4.

2 SET PASSWORD

- 1 Press ▶ button after selecting "Change".

The password window appears on TV screen.



- 2 Enter the current password in 4 digits by using 0 to 9 button.
- 3 Enter the new password in 4 digits by using 0 to 9 button.
- 4 Re-enter the new password for verify. The password is changed.

Using the Setup Menu

RECORD



1 RECORD QUALITY

The record quality offers 5 quality level :

- **HQ** : High Quality, you can record for up to 1 hour in a blank disc.
- **SP** : Standard Play, you can record for up to 2 hours in a blank disc.
- **LP** : Long Play, you can record for up to 3 hours in a blank disc.
- **EP** : Extended Play, you can record for up to 4 hours in a blank disc.
- **SLP** : Super Long Play, you can record for up to 6 hours in a blank disc.

2 DVD AUTO CHAPTER

When "Auto Chapter" is set to "5Min", chapters are created automatically within a title at five-minute intervals.

3 TIMER RECORD

See section "Timer Recording".

DISC



1 AUDIO LANGUAGE

Set this value to the preferred audio language. If an audio language is selected, whenever you start playing a new disc, the selected audio language is played. (if the selected language is contained in the disc)

2 SUBTITLE LANGUAGE

Set this value to the preferred subtitle language. If a subtitle language is selected, whenever you start playing a new disc, the selected subtitle language is played. (if the selected language is contained in the disc)

3 MENU LANGUAGE

Set this value to the preferred disc menu language. If a disc menu language is selected, whenever you start playing a new disc, the selected disc menu language is played. (if the selected language is contained in the disc).

4 AUTO PLAY

Set to "On" to play the disc automatically whenever it loads.

5 INITIALIZE DVD (DVD+RW only)

When you first load a blank DVD+RW disc, you should initialize it.

1 Press ENTER button after selecting "Start" by pressing ► button.

It asks for confirmation again.

- 2 Press **ENTER** button after selecting "Yes".

NOTE

- Initializing a disc will erase everything recorded on it. Make sure there is nothing on the disc that you want to keep.
- You may not be able to re-initialize a disc if it was initialized on other brand DVD recorders.

6 FINALIZE DVD (DVD+R/RW only)

If you want to make your DVD+R or DVD+RW disc compatible with the other DVD Player, you should go on FINALIZE operation.

- 1 Press **ENTER** button after selecting "Start" by pressing ► button.

It asks for confirmation again.

- 2 Press **ENTER** button after selecting "Yes".

It takes a couple of minutes to finalize the disc.

NOTE

- If a DVD+R has been finalized, you can not record or edit the DVD+R any more.
- If DVD+R disc is loaded, this function works same as "Close Disc" on disc editing menu.
- If DVD+RW disc is loaded, this function works same as "Make Compatible" on disc editing menu.

7 FORMAT HDD

If the HDD file system becomes corrupted for some reason, you can format the HDD to fix the problem. Note that formatting the HDD will erase all the data on it.

- 1 Press **ENTER** button after selecting "Start" by pressing ► button.

It asks for confirmation again.

- 2 Press **ENTER** button after selecting "Yes".

It starts to format the HDD.

8 SCANDISK HDD

You can scan the disk of HDD whether the data is broken or not.

- 1 Press **ENTER** button after selecting "Start" by pressing ► button.

It asks for confirmation again.

- 2 Press **ENTER** button after selecting "Yes".

It starts to scan the disk of HDD.

Additional Information

Specifications

General	Supported disc types	DVD/DVD, CD-DA, CD, CD-R/CD-RW, DVD+R/RW
	Supported video formats	MPEG-1, MPEG-2, JPEG
	TV system	PAL / SECAM
	Power requirements	AC 100 V-240 V, 50/60 Hz
	Power consumption	35 W
	Weight	3.9 kg
	Dimensions	420(W) x 44(H) x 290(D) mm
	Operating temperature	5°C to 35°C
	Operating humidity	10 % to 75 % (no condensation)
Recording	Recording format	DVD VIDEO
	Recordable media	DVD+R, DVD+RW, HDD (120GB)
Timer	Programs	8 Programs
	Clock	Quartz lock (24-hour digital display)
	Power off memory	Approx. 1 hour 30 min.
Euro AV connectors (21-pin connector)	AV connector input / output x 1	This connector provides the video and audio signals for connection to a compatible color TV or monitor.
	AV connector output x 1	
S-Video output	Y (luminance) - Output level	1.0 Vp-p (75 Ω)
	C (color) - Output level	0.286 Vp-p (75 Ω)
	Jacks	S-VIDEO jack
Video Output	Output level	1.0 Vp-p (75 Ω)
	Jacks	RCA jack
	Component video output (Y, Cb/Pb, Cr/Pr)	Y: 1.0 Vp-p (75 Ω)
	Output level	Cb/Pb, Cr/Pr : 0.7 Vp-p (75 Ω)
Audio output	Output level	2 Vrms (1 kHz, 0 dB)
	Number of channels	5.1 Channels
	Jacks	RCA jack
Audio characteristics	Frequency response	4 Hz to 44 kHz (DVD fs: 96 kHz)
	S/N ratio	100 dB
	Dynamic range	95 dB
	Total harmonic distortion	0.03 %
Digital output	Optical digital output	Optical digital jack
	Coaxial digital output	RCA jack
DV input	IEEE 1394 standard	4 pin
Accessories	Audio/Video cable	1
	RF Cable	1
	Scart Cable	1
	Remote control unit	1
	"AA" size batteries	2
	Operating Instructions	1

NOTE

• The specifications and design of this product are subject to change without notice, due to improvement.

Troubleshooting

Incorrect operation is often mistaken for trouble or malfunction. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Inspect the other components and electrical appliances being used. If the trouble cannot be rectified after checking the items below, ask your nearest authorized service center or your dealer to carry out repair work.

Problem	Solution
The disc is ejected automatically after loading.	<ul style="list-style-type: none"> • Dirty or damaged disc
Disc not seated properly in the disc guide.	<ul style="list-style-type: none"> • Align the disc properly.
Incompatible region number.	<ul style="list-style-type: none"> • If the region number on a DVD-Video disc does not match the number on the player, the disc cannot be used.
Condensation inside the player.	<ul style="list-style-type: none"> • Allow time for condensation to evaporate. Avoid using the player near an air-conditioning unit. • Playback is not possible.
Disc is loaded upside down.	<ul style="list-style-type: none"> • Reload the disc with the label side face up.
⊙ mark appears on screen.	<ul style="list-style-type: none"> • The operation is prohibited by the player and / or disc.
Picture playback stops and the operation buttons cannot be used.	<ul style="list-style-type: none"> • Switch the power off once using the front panel STANDBY/ON button and then switch on again using the front panel STANDBY/ON button. • Disconnect the power plug and reinsert it back into the wall.
New settings made in the Setup screen menus while a disc is playing are ineffective. Settings are canceled.	<ul style="list-style-type: none"> • Some settings can be changed while a disc is playing, but are not effective until the disc is stopped then restarted. • This is not a malfunction. Make the same setting when the player is stopped. • When the power is cut due to power failure or by unplugging the power cord, settings will be canceled.
No picture / No color	<ul style="list-style-type: none"> • Incorrect video connections. Check that connections are correct and that plugs are inserted fully. • TV/monitor or AV amplifier settings are incorrect. Check the instruction manual of the connected equipment. • The Component output menu is set to progressive but your TV/monitor is not compatible with progressive scan. • Reconnect the player to your TV using a composite or S-Video cord and set the TV to appropriate input.
The DVD recorder cannot record.	<ul style="list-style-type: none"> • The type of the disc is wrong, it's not a DVD+RW or DVD+R disc. • The disc is recorded fully. • The DVD+R has been finalized.
Screen is stretched or aspect does not change.	<ul style="list-style-type: none"> • The TV aspect ratio setting in the Setup menu is incorrect. Set the TV aspect ratio option to match the TV/monitor you're using.
Picture disturbance during playback or dark.	<ul style="list-style-type: none"> • This player is compatible with Macro-Vision System copy guard. Some discs include a copy prevention signal, and when this type of disc is played back, stripes etc., may appear on some sections of the picture depending on the TV.

Additional Information

Problem	Solution
The remote control doesn't seem to work.	<ul style="list-style-type: none"> • The remote control is too far from the player, or the angle with the remote sensor is too wide. <p><u>Use the remote within its operating range.</u></p> <ul style="list-style-type: none"> • The batteries are exhausted. Put in new batteries.
No audio, or audio is distorted.	<p><u>Some DVD discs do not output digital audio.</u></p> <ul style="list-style-type: none"> • Switch your amplifier to the player's analog outputs. <p><u>Dirt, dust, etc. on the disc.</u></p> <ul style="list-style-type: none"> • Clean the disc. <p><u>Interconnects are not fully inserted into the terminals (or are not connected).</u></p> <ul style="list-style-type: none"> • Check that all interconnects are firmly inserted. <p><u>Dirty or oxidized plugs/terminals.</u></p> <ul style="list-style-type: none"> • Clean the plugs/terminals. <p><u>Incorrect audio cable connection.</u></p> <ul style="list-style-type: none"> • Check the audio connections. <p><u>Player's output is connected to the amplifier's phono (turntable) inputs.</u></p> <ul style="list-style-type: none"> • Connect to any set of inputs except phono. <p><u>The disc is paused.</u></p> <ul style="list-style-type: none"> • Press (play) to exit the pause mode. <p><u>Incorrect amplifier settings.</u></p> <ul style="list-style-type: none"> • Check that the volume is turned up, that the speakers are on, the input function set correctly, etc.
The analog audio is OK, but there appears to be no digital audio signal.	<p><u>Incorrect Audio menu settings.</u></p> <ul style="list-style-type: none"> • Make sure that the Digital Audio Out setting is set to PCM or Bitstream. Check that the PCM or Bitstream settings are suitable for your amplifier -check the amp's instruction manual.
Noticeable difference in DVD and CD volume.	<ul style="list-style-type: none"> • DVDs and CDs use different recording methods. This is not a malfunction.
No DTS audio output.	<ul style="list-style-type: none"> • If this unit is connected to a non-DTS compatible amplifier or decoder using a digital audio cable, please connect to a DTS compatible amplifier or decoder. If you do not do this, noise will be output if you try and play a DTS disc. • If this unit is connected to a DTS-compatible amplifier or decoder using a digital audio cable, check the amplifier settings, and that the cable is properly connected.

NOTE

• Static electricity or other external influences may cause malfunctioning of this unit. In this case, unplug the power cord and then plug back in. This will usually reset the unit for proper operation. If this does not correct the problem, please consult your nearest service center.

Updates

Please check out regularly our web site for further updates and assistance about this product: www.hb-direct.com.

Important safety information

Read these instructions carefully and pay attention to all warnings and guidelines.

Do not overload electrical sockets or extension cables. Overloading can result in fire or electric shock.

Never insert objects into the DVD player's cabinet door. They might come into contact with dangerous voltage points or short-circuit components, which can cause fire or electric shock.

Do not spill liquids on the DVD player.

If the DVD Player does not function normally, or if it emits unusual sounds or odors, pull out the plug immediately and contact an authorized technician.

Do not attempt to service the DVD player yourself. If you open or dismantle the shielding, you expose yourself to dangerous voltage and other hazards. All maintenance must be carried out by qualified service technicians.

Environmental information

The system is made of recyclable materials which can be reused if disassembled by authorized personnel.

Please follow local regulations for the disposal of packaging materials, used batteries and discarded units.

Copyright

This product contains copyright technology which is protected pursuant to the patents that are the property of Macrovision Corporation and other copyright holders. Any use of this copyright technology must be approved by Macrovision Corporation. The technology is intended for use in the home unless otherwise approved by Macrovision Corporation. Breakdown and disassembly are prohibited.

Made under license from Dolby Laboratories. "Dolby" and the double "D" symbol are trademarks of Dolby Laboratories.

Warranty certificate

H&B provides a twelve (12) month warranty from the date of purchase against material and manufacturing defects.

In the event of defects covered by the warranty, the product must be returned to the dealer that sold the product.

If any problems arise, information on our authorized service centers is available the dealer who sold the product.

Terms of Warranty

1. The warranty is only valid on presentation of a correctly completed warranty certificate and sales ticket, and if the serial number on the product is fully legible.
2. The obligations of H&B are limited either to repair or replacement of defective components. The repair or replacement of defective components is based on an assessment by H&B.
Exchange is only possible if the repair cannot be performed.
3. Warranty repairs must be performed by an authorized H&B dealer, or an authorized service centre. No remuneration is provided for repairs performed by unauthorized workshops.
Any repairs or damage to the product caused by unauthorized intervention are not covered by this warranty.
4. This product will not be viewed as defective, either in materials or in manufacture, if adaptation to national, local, technical or safety-related requirements is required in countries other than the specific country for which the product was originally designed and manufactured.
5. This warranty does not cover these types of adaptations, and no remuneration will be offered for these types of adaptations or for any consequential damages. The warranty does not cover the following:
 - a. Periodic inspection, maintenance and repair or replacement of parts resulting from normal wear.
 - b. Costs connected to transport, disassembly or installation of the product.
 - c. Misuse, including use for other purposes than was intended or faulty installation.
 - d. Damage caused by lightning, water, fire, natural catastrophes, war, insurrection, incorrect line voltage, insufficient ventilation or other causes beyond the control of H&B.
6. This warranty applies to every legal owner of the product during the warranty period.

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